

**REMARKS**

Reconsideration of the above-identified application in view of the foregoing amendment and following remarks is respectfully requested.

**Status of the Claims:**

Claims 9-18 and 25-32 are pending, among which claims 9-18 were withdrawn from consideration. As a result, claims 25-32 are currently being under consideration. Claims 25-32 stand rejected. By this amendment, claim 25 is amended. No new matter has been added by this amendment.

**Rejections under 35 U.S.C. §102**

Claims 25-32 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated either by U.S. Patent No. 5,754,300 to Magome et al. ("Magome") or by U.S. Patent No. 5,808,910 to Irie et al. ("Irie").

Responding to Applicants Amendment filed on September 7, 2006, the Office Action refers to Magome and indicates, *inter alia*, that "examiner is broadly interpreting 'valid' to include the clipped signal. The lines are clipped (Fig. 8c) compared to the light-intensity signal that is not clipped (Fig. 8a-8b). Lines that are not clipped are not valid, whereas lines that are clipped are valid. The clipped, valid lines are then used to determine position information." Regarding Irie, the Office Action indicates that, *inter alia*, "[a]s broadly interpreted, the lines that are associated with the peculiar shot are not valid lines, and since the peculiar shot is excluded from the position determination (col. 3, lines 58-65), the position determination is based only valid lines."

Applicants respectfully disagree with the Examiner's basis for the rejections as indicated above. Most of all, the "lines" of the present invention are formed by the pixels of the image sensor along with the detection direction and the determination step determines whether the light-intensity signal from the "lines" is valid. Neither Magome nor Irie shows or suggests this aspect of the invention.

Nonetheless, independent claim 25 has been amended for further clarification. In particular, amended claim 25 recites, *inter alia*, "a conversion step of converting the image information to a plurality of light-intensity signals for each line of the plurality of lines, the plurality of light intensity signals being primary image signals obtained from the lights from different areas of a mask area in the shot in the direction of the position detection mark substantially parallel to the surface of the substrate and in the direction orthogonal to the detection direction."

With the features of the present invention as described above, the mark position may be detected with a high precision even if the detection mark has a defect.

Magome disclose a position detection method of generating different signals from original by converting slice level of light intensity. Irie obtains only one signal from one shot on the surface of the substrate.

However, none of the cited references (Magome and Irie) teaches the above described features of the present invention (e.g., the conversion step). For example, Irie, concerning about the deterioration of the measurement accuracy of the mark position, simply omits the imperfective mark in the shot, thus the number of marks for a global alignment is reduced that gives an advantage of the averaging process.

Accordingly, claim 25 as amended is believed neither anticipated by nor rendered obvious in view of the cited references (i.e., Magome and Irie), either taken alone or in combination, for at least the reasons discussed above.

Reconsideration and withdrawal of the rejection of claim 25 under 35 U.S.C. §102(b) is respectfully requested.

Finally, Applicants have not specifically addressed the rejections of the dependent claims (i.e., claims 26-32). Applicants respectfully submit that the independent claim 1, from which they depend, is in condition for allowance as set forth above. Accordingly, the dependent claims also are in condition for allowance. Applicants, however, reserve the right to address such rejections of the dependent claims in the future as appropriate.

Applicants believe that the application as amended is in condition for allowance and such action is respectfully requested.

**AUTHORIZATION**

No petitions or additional fees are believed due for this amendment and/or any accompanying submissions. However, to the extent that any additional fees and/or petition is required, including a petition for extension of time, Applicants hereby petition the Commissioner to grant such petition, and hereby authorizes the Commissioner to charge any additional fees, including any fees which may be required for such petition, or credit any overpayment to Deposit Account No. 13-4500 (Order No. 1232-5156). A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.

An early and favorable examination on the merits is respectfully requested.

Respectfully submitted,  
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